

Wii U

Application Boot Flow Manual

Boot Flow and Specifications for Application Icons
Static Background Image for the Startup Screen
Boot Sound

2013/06/10

Version 1.2

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1 Introduction

This document explains specifications of the data required for starting applications and how that data is displayed and played back. Its target audience is application developers.

The following data is necessary when starting applications.

- Application Icon
- Title Name (Long Name)
- Static Background Image for the Startup Screen (for application-specific/TV, application-specific/Wii U GamePad)
- Logo Image

The Wii U logo/Nintendo logo image. It is necessary to select the type of display logo in the Application Configuration Tool.

- Boot Sound

This is the sound for the application startup screen, which gets played when the application is started from the Wii U Menu.

Note: There are also short names for titles to be submitted, but these are used on the System Settings > Data Management screen, not on the Wii U Menu. It is not necessary for the entire title to be displayed on the Data Management screen.

For information on how to submit these items of data, see the documentation in Table 1-1.

Table 1-1 Documentation Related to Master Submissions

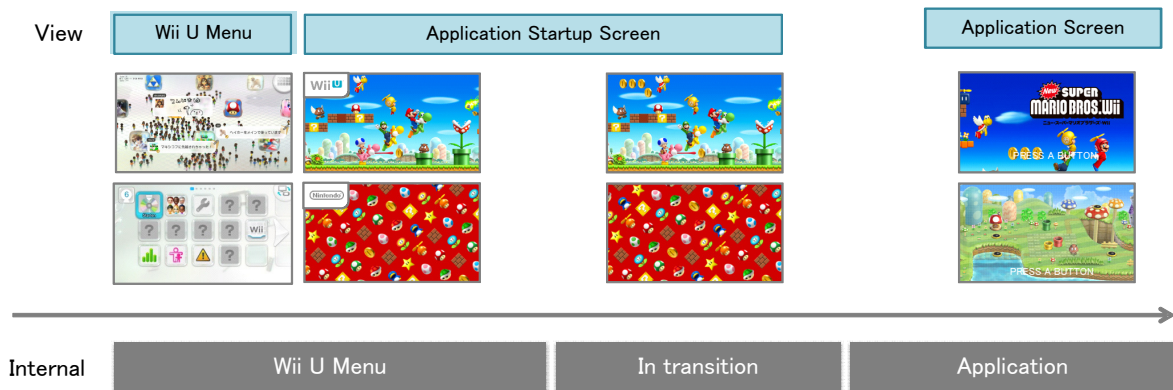
Document	Description
<i>Wii U Application Configuration Tool Manual</i>	This document provides information on how to use the Wii U Application Configuration Tool.
<i>Wii U Master ROM Creation and Submission Procedures</i>	This document describes the steps from the creation to the submission of a master ROM for Wii U.

Note: This document includes provisional content. Areas that are particularly likely to change in the future are **highlighted in turquoise**.

2 Application Startup Sequence

When an application is started from the Wii U Menu, the screens and internal processing transition as shown in the figure below.

Figure 2-1 Sequence of Application Startup from the Wii U Menu



The following items of data are used on the Wii U Menu and application startup screen.

- Wii U Menu
 - Application Icon
 - Title Name (Long Name)
- Application Startup Screen
 - Static Background Image for the Startup Screen (for application-specific/TV, application-specific/Wii U GamePad)
 - Logo Image
 - Boot Sound

3 Wii U Menu

The Wii U Menu is as shown in the figure below.

Figure 3-1 Wii U Menu



Figure 3-2 Wii U Menu Title Name (Long Name) Callout



The following items of data are used on the Wii U Menu.

- Application Icon
- Title Name (Long Name)

3.1 Application Icon

Create application icon images in the following size and format.

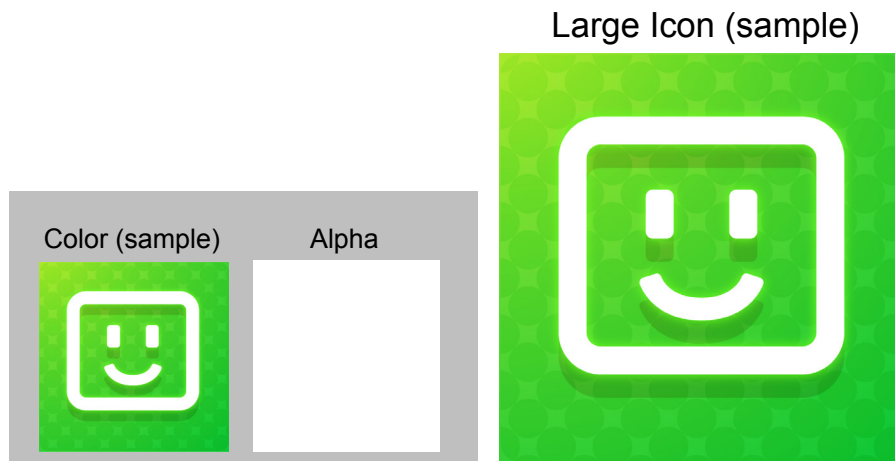
- 128x128 pixels (column x row)
- 32-bit TGA with alpha channel (RGBA)

Although the format is 32-bit, the alpha channel value must be set to an opaque value (255).

Do not include any information in an application icon that is dependent on the console's language setting, because it is not possible to edit the application icon, depending on the console's language setting.

Note: It is important to design the large icon (384x384 pixels), submitted separately for printing packages, so that it looks the same as the application icon described above. Limit design changes to fine adjustments, such as line thickness or sharpness compensation.

Figure 3-3 Icon Formats



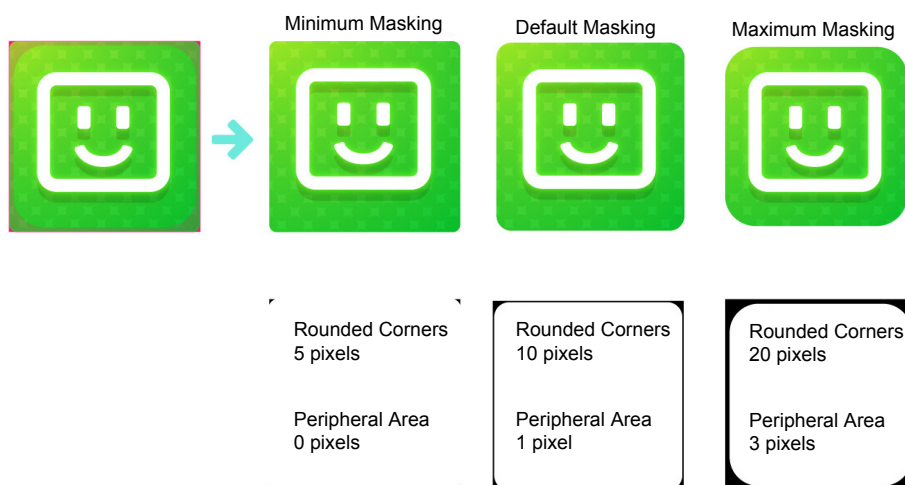
The application icon images submitted are perfectly square, but for the reasons specified below, there are parts of the images that are not visible when displayed on the Wii U Menu.

- Masking
- Display of “Start”

3.1.1 Masking

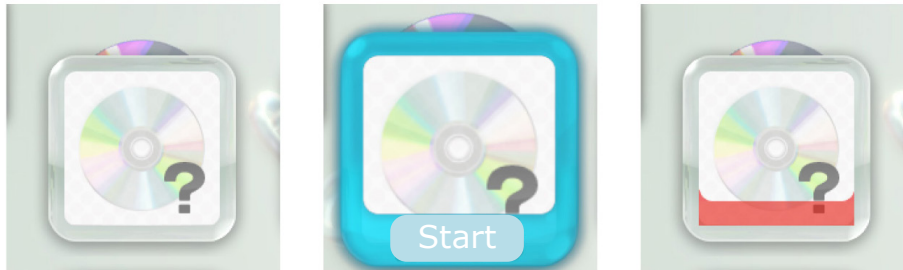
Application icons are displayed masked on the Wii U Menu. As shown in Figure 3-4, the periphery and corners have masks of 0 to 3 pixels and 5 to 20 pixels, respectively.

For this reason, Nintendo recommends design elements with important information, such as character faces or letters, fit inside the masked area.

Figure 3-4 Mask Ranges

3.1.2 Display of “Start”

When an application icon is selected on the Wii U Menu, the word “Start” appears, clipping the bottom 22 pixels from view. These 22 pixels are not always clipped, but create application icons with this point in mind.

Figure 3-5 How Application Icons Appear When Selected

3.2 Title Name (Long Name)

When an application icon is selected on the Wii U Menu, the title (long name) appears in a callout, as shown in Figure 3-2. The maximum string length is shown for the long name in Figure 3-2. The maximum string length is two lines of 17 characters, where a character is the width of a percent sign (%). The actual number of characters therefore varies depending on the specific characters used. You can check whether the title entered exceeds the maximum string length when setting the title name in the Application Configuration Tool.

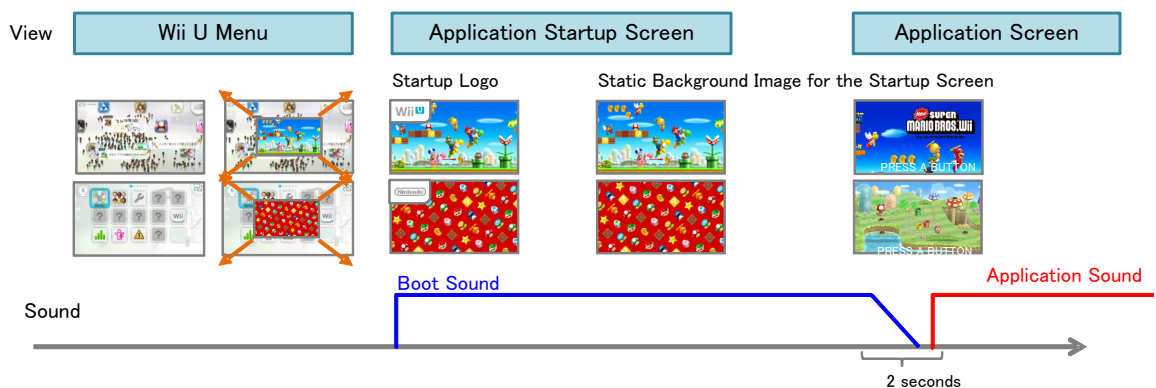
Note: Regardless of the region for the application or the supported languages, it is necessary to set the title name in English.

4 Application Startup Screen

The following data is used on the application startup screen.

- Static Background Image for the Startup Screen (for application-specific/TV, application-specific/Wii U GamePad)
- Logo Image
- Boot Sound

Figure 4-1 How Data is Used on the Application Startup Screen



When an application icon is selected on the Wii U Menu, an animation appears on both the TV screen and the Wii U GamePad screen in which the static background image enlarges. At this time, a logo is shown in the upper-left part of the screen. The boot sound is played back from the point when the animation ends. Then the application starts, and when the transition is made to the application screen, the sound fades and stops.

4.1 Static Background Image for the Startup Screen

The static background image for the startup screen is shown enlarging in the animation on the Wii U Menu, and is then replaced by the application screen at the point when the system switches over to the application. How the screen appears at the beginning of the application is left up to the application developer.

Create the static background images in the following sizes and formats.

- **For the TV**
 - 1280x720 pixels (column x row)
 - 24-bit TGA without alpha channel (RGB)
- **For the GamePad**
 - 854x480 pixels (column x row)
 - 24-bit TGA without alpha channel (RGB)

Note the following when creating images.

- Prohibitions on Use Based on the Assumption Users will Notice

Following are the reasons for the prohibitions.

- Because future updates could change how long the application startup screen is shown
- Because even if a future console is compatible with the Wii U, it cannot be guaranteed that the display of the application startup screen will be the same as the Wii U

- Exclusion of Language Setting-Dependent Information

Nintendo recommends not including information in images that is dependent on the language settings of the console. This is so the static background image for the startup screen does not change when the language settings on the Wii U console are changed.

- Images Partially Clipped from View by Logo

Images are partially clipped from view due to the logo image that displays in the upper-left part of the screen on both the TV and the GamePad. See section 4.2 Logo Image for information about the size of the area that is clipped.

4.2 Logo Image

On the application startup screen, the Wii U logo image is shown on the TV and the Nintendo logo image is shown on the GamePad. The size and display position of each are as shown in the figures below.

Figure 4-2 Logo Image (TV)

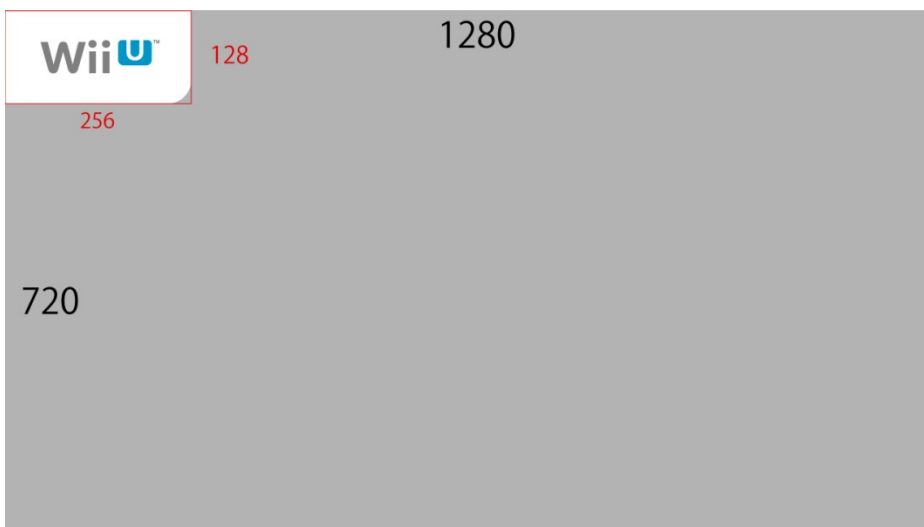


Figure 4-3 Logo Image (GamePad)

The resource data for these images is automatically incorporated during mastering.

4.3 Boot Sound

The application's boot sound is played at the point after the application is selected from the Wii U Menu when the display of the static background image ends, as shown in Figure 4-1. Then after the application starts, the `AXInit` function is called, at which point the boot sound fades out over a span of approximately 2 seconds and then stops.

Create boot sounds in the following size and format.

Table 4-1 Restrictions on Audio Data Used in Boot Sounds

Item	Restriction
Length of Sound	No more than 20 seconds
Source File Format	WAV (little-endian)
Number of Channels	2 ch
Bitrate	PCM16
Sampling Rate	48 kHz

Notes on what can be configured with the Application Configuration Tool are listed below.

- Looped Playback

By default, boot sounds are played back from the beginning of the sound waveform until the ending position. The starting position for a loop (the loop offset) can be set with the Application Configuration Tool.

Note: The length of time the application startup screen is shown could change in the future, and the number of times the sound loops could change along with it.

- How to Disable Looped Playback

The boot sound is played back in a loop, but to avoid that, insert a silent space at the end of the sound waveform, and then specify that portion of the sound for looped playback.

- Audio Output Destination

It is necessary to specify the audio output destination between the TV and GamePad, or dual (both) in the Application Configuration Tool.

However, separate sounds cannot be played back on the TV and the GamePad.

- Default Boot Sound

If you will not be preparing a unique boot sound for the application, be sure to put the sound data for the default boot sound in the specified output location. This is because the system requires a boot sound be played when any application starts.

Revision History

Version	Revision Date	Category	Description
1.2	2013/06/10	Changed	• Overall Changed the term "icon" to "application icon." • 3.1 Application Icon Finalized the size of the large icon. • 3.2 Title Name (Long Name) Noted that the maximum number of characters of the title name (long name) that can be displayed in the Wii U Menu can be checked in the Application Configuration Tool,
1.1	2013/01/15	Changed	• Overall Changed term "Launcher" to "Wii U Menu." • 1 Introduction In Table 1-1 Documentation Related to Master Submissions, merged the <i>Wii U Master ROM Creation Procedures</i> and <i>Wii U Master ROM Submission Procedures</i> into a single document (<i>Wii U Master ROM Creation and Submission Procedures</i>). • 3.1 Icon Removed note about extensibility of alpha values in icons. Noted that icons must not contain information dependent on the language settings.
1.0	2012/09/21	—	Initial version.

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